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# (12) UK Patent Application (19) GB (11) 2 157 574A

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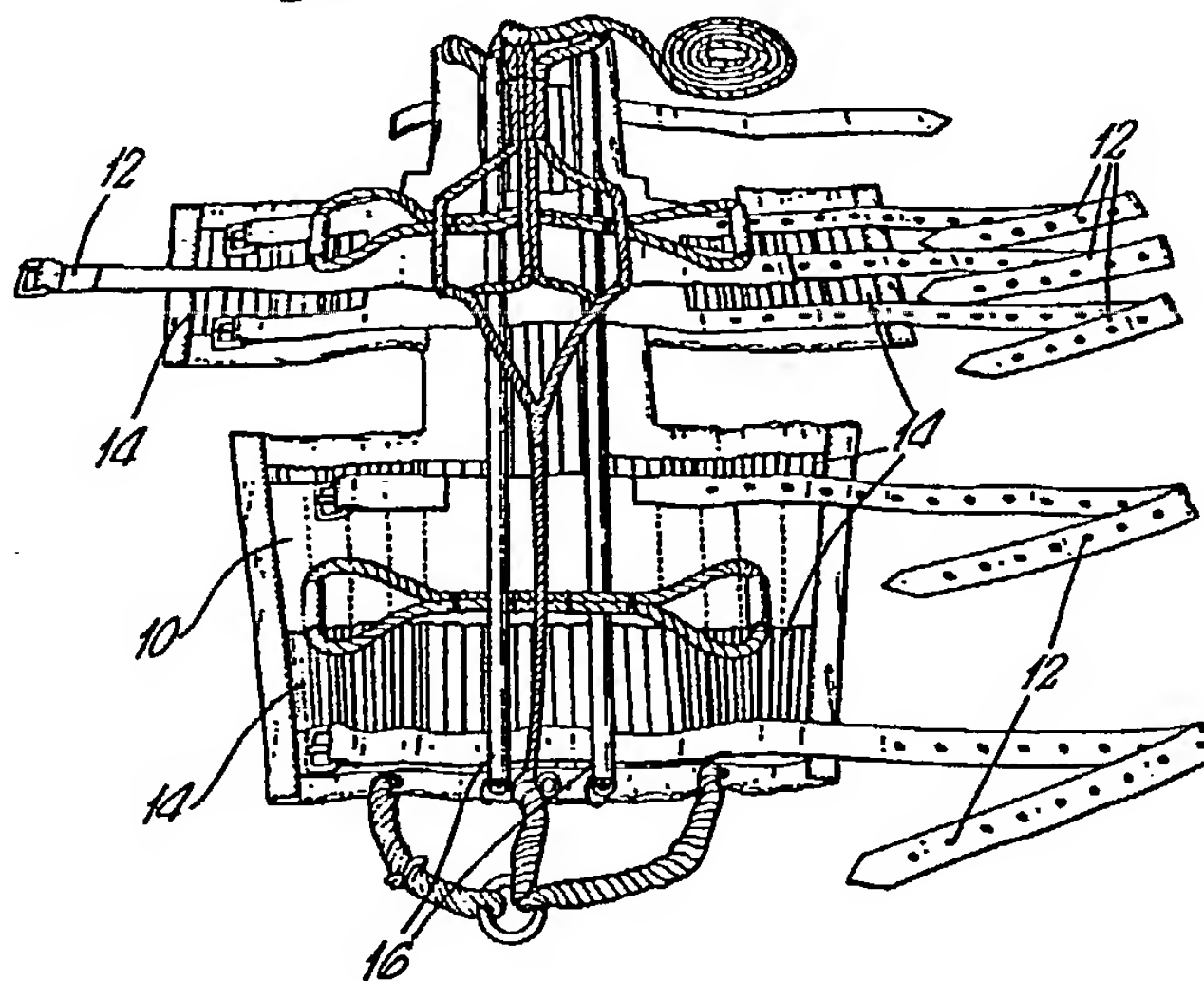
(56) Documents cited  
GB 0600232  
GB 0352496

(58) Field of search  
A5X

## (54) Stretcher

(57) Stretchers, especially Neil Robertson stretchers, comprise canvas (10) stiffened by slats (14) so as to act as a splint for the whole body, and one or more rigid reinforcing members such as metal tubes (16) extend substantially the full length of the stretcher in order to hold a casualty completely immobile in the stretcher.

Fig. 2.



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The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1982.

Fig. 1.

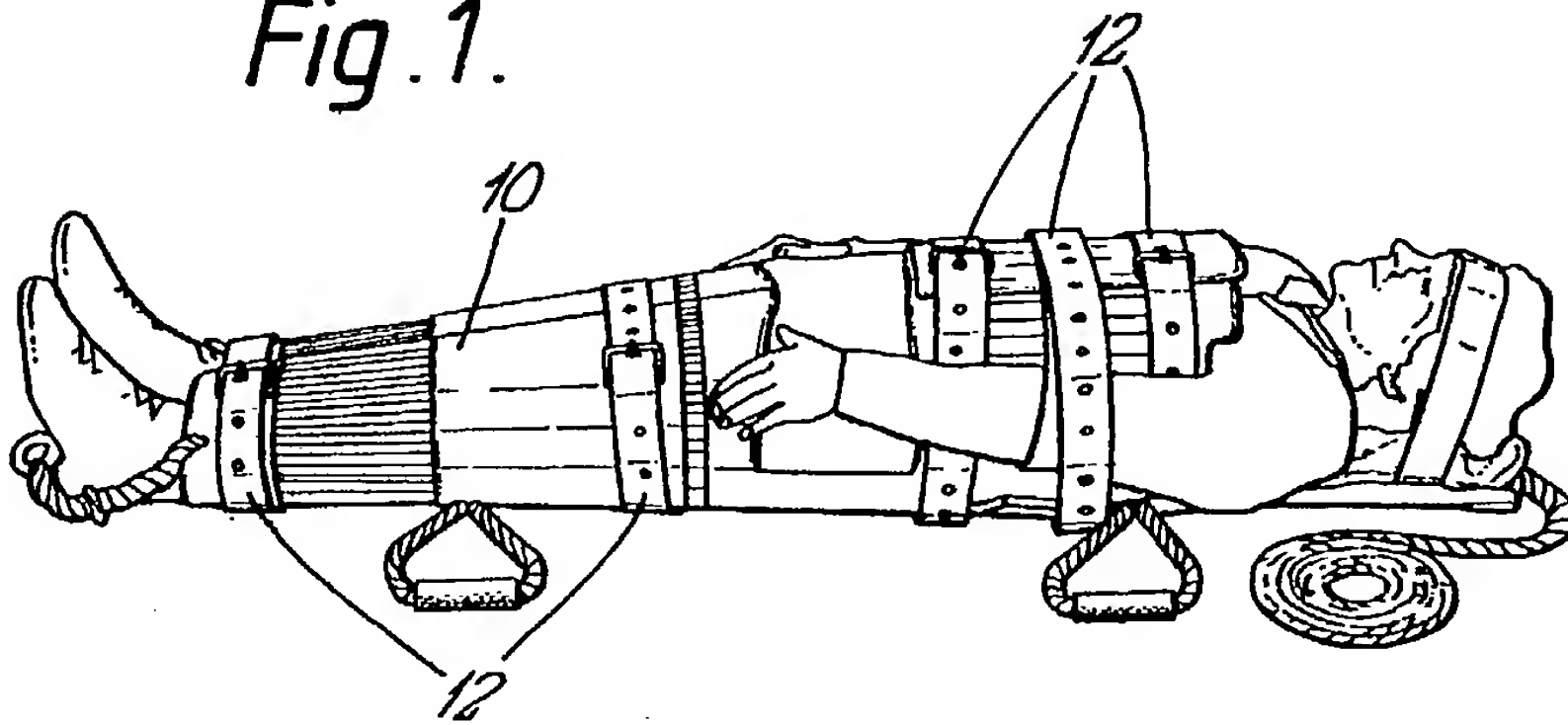
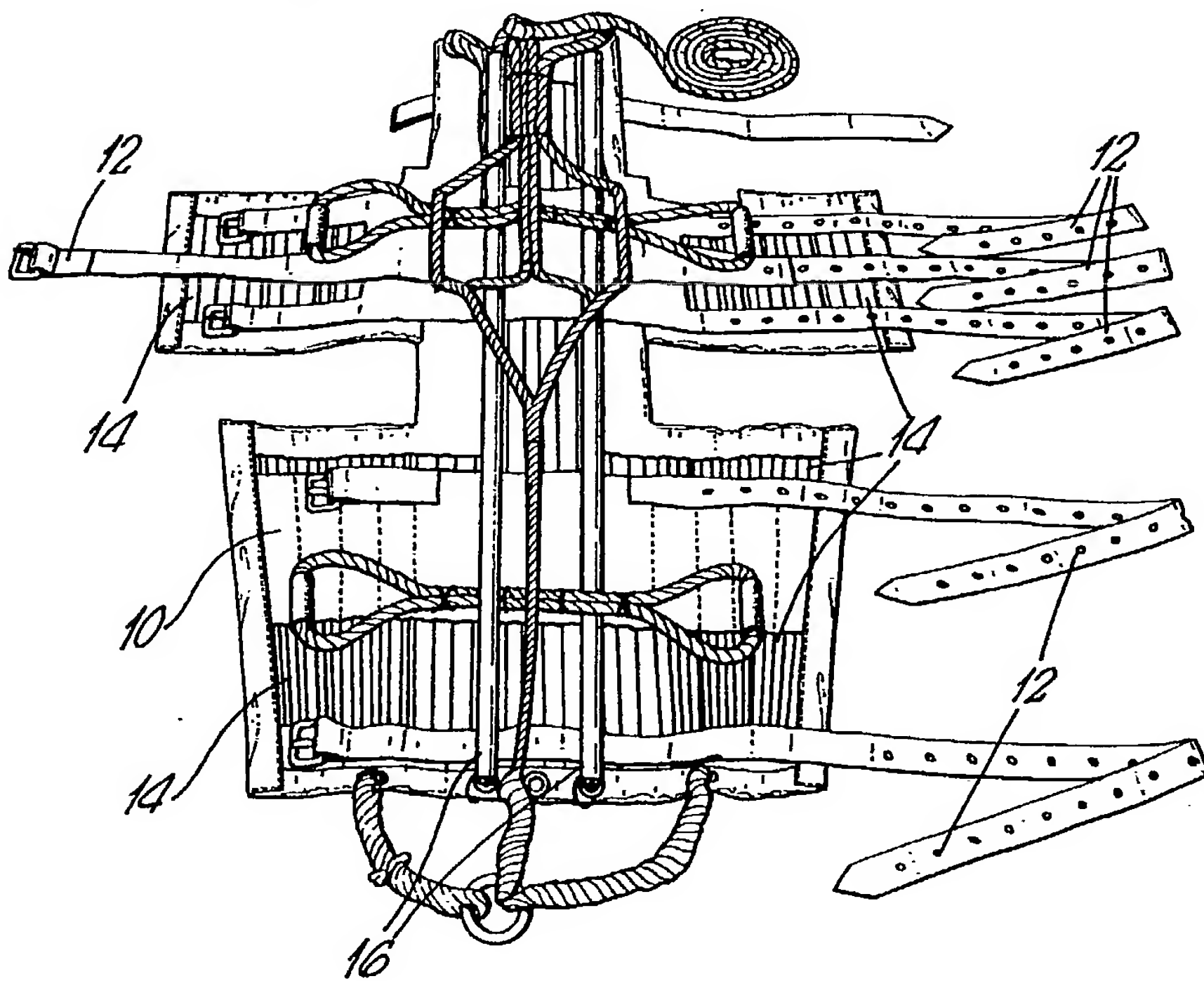


Fig. 2.



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Fig. 3.

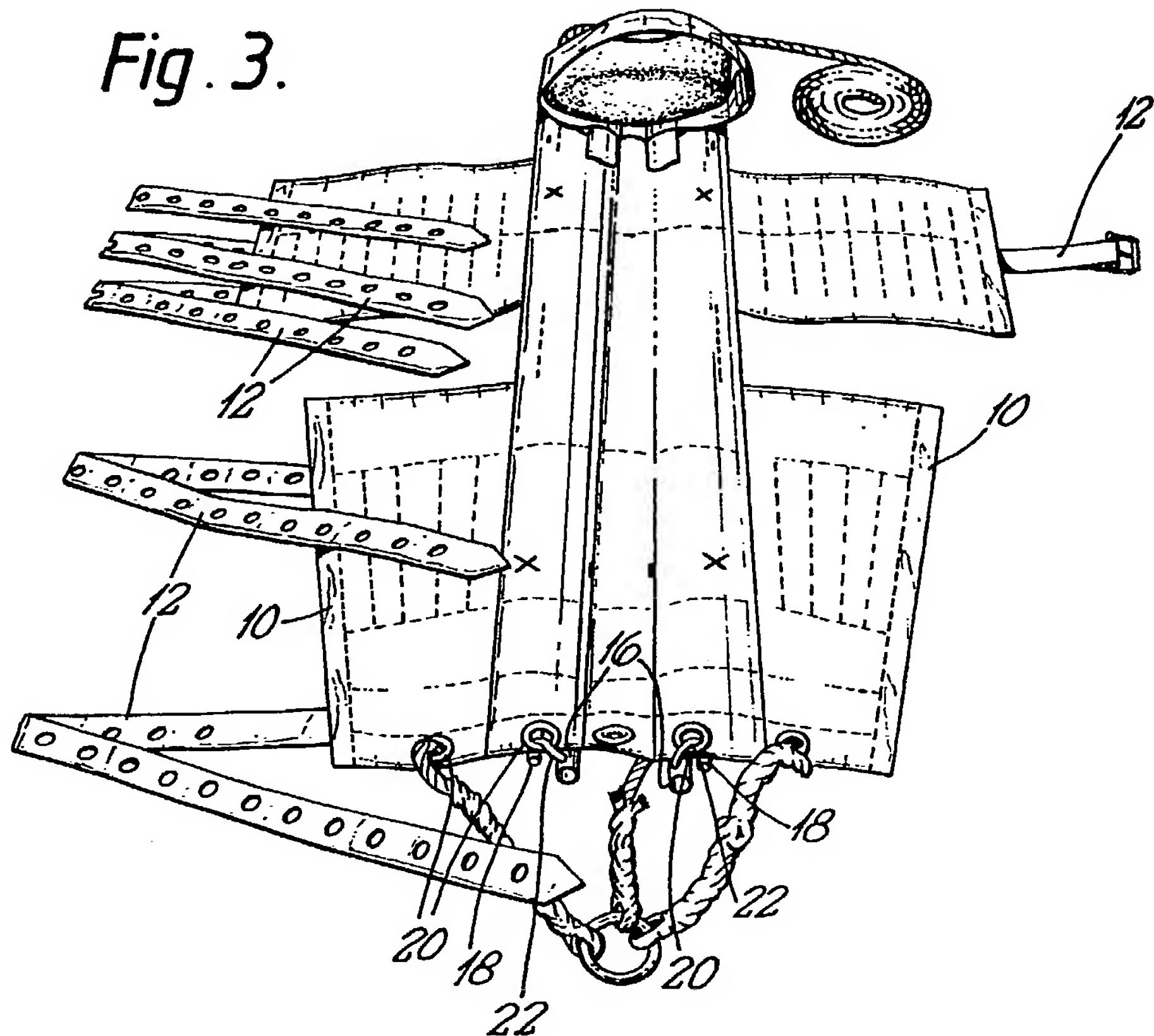
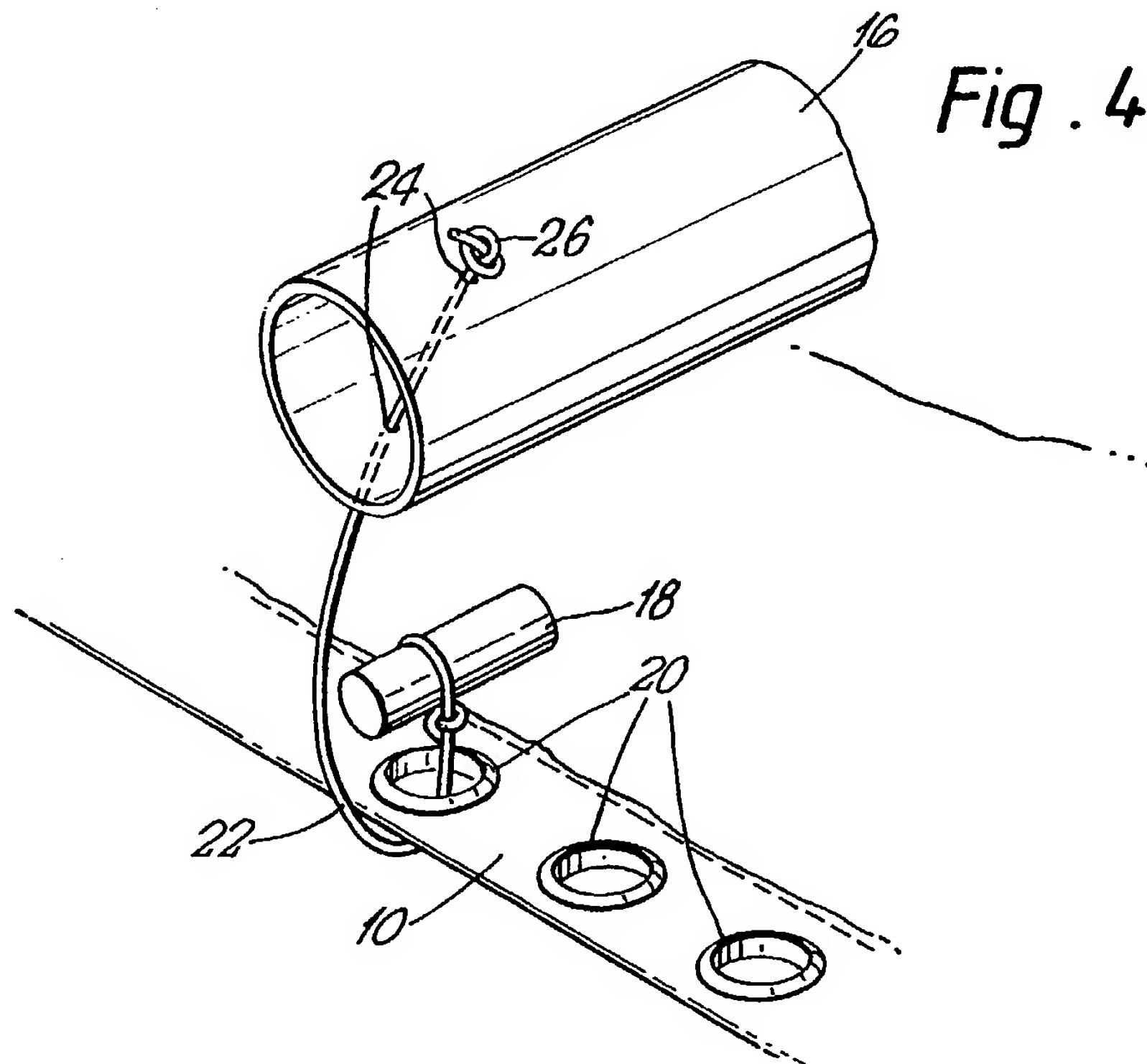


Fig. 4.



## SPECIFICATION

### Stretcher

This invention relates to stretchers. In particular, it relates to Neil Robertson stretchers.

- 5 Neil Robertson stretchers were originally designed for use on board ship, in mines or in confined spaces. The casualty is held firmly in any position within the strong canvas of the stretcher, the canvas being stiffened by wooden slats so as to  
10 act as a splint for the whole body. A ring at the head of the stretcher allows it to be suspended by a rope or cable, while another ring at the foot of the stretcher has a rope attached to it for steadying purposes. The size of the stretcher is such that the  
15 canvas can be wrapped round the body of the casualty with the slats positioned on all sides of the body.

- Although therefore a Neil Robertson stretcher acts as a kind of splint for the whole body, it has been  
20 found that it is not rigid enough in those cases where the casualty has suffered such an injury that he or she must be held completely immobile. It is therefore an aim of the present invention to provide an improved Neil Robertson stretcher which is more  
25 rigid than those used hitherto.

With this aim in view, the invention is directed to a Neil Robertson stretcher having one or more rigid reinforcing members extending substantially the full length of the stretcher.

- 30 Preferably, two parallel reinforcing members are used, the said members being spaced apart and being in the form of rigid aluminium or steel tubes having toggles at their ends which can be removably inserted through eyelets in the stretcher  
35 canvas. It is not however essential that metal tubes be used as reinforcing members; they could, for example, be wooden poles or metal channel section members.

- An example of a stretcher in accordance with the  
40 invention is shown in the accompanying drawings, in which—

Figure 1 is a side view of the stretcher strapped around a casualty;

- Figure 2 is an underneath view of the stretcher in  
45 its opened out form, i.e., flat on the ground;

Figure 3 is a view similar to Figure 2 but from above the stretcher; and

Figure 4 is a perspective view of a detail of the stretcher.

- 50 The stretcher shown in the drawings is a Neil Robertson stretcher having a main part 10 of canvas provided with straps 12 by means of which the canvas can be wrapped round the body of a casualty as shown in Figure 1. Wooden slats 14 are inserted  
55 in pockets in the canvas so as to give it a certain amount of rigidity so that the stretcher acts as a body splint when wrapped around a casualty. Although Neil Robertson stretchers have proved very effective in use, it has been found that they are  
60 not sufficiently stiff as to render a casualty immobile. Thus, it is sometimes that the injury to the casualty demands that he or she be kept absolutely stiff while being transported on the stretcher. Accordingly, the stretcher shown in the

- 65 drawings is provided with removable rigid reinforcing members 16 in the form of two metal tubes which extend substantially the full length of the stretcher. These tubes are preferably made of aluminium or steel and they are provided at their  
70 ends with toggles 18 which can be passed through eyelets 20 in the canvas of the stretcher so as to fasten the tubes to the canvas in a secure but easily removable fashion. As will be seen from Figure 4, each toggle 18 has a cord 22 which passes through a  
75 pair of opposing holes 24 in an end of a respective tube 16 with the end of the cord being knotted at 26.

- As will be seen from Figure 2 of the drawings, the two tubes 16 are looped under some of the straps or cords of the stretcher so that the tubes and the  
80 canvas are held together not only at the ends of the tubes but along their intermediate portions as well.

- It is not essential that metal tubes be used as reinforcing members, nor the number of reinforcing members be always two. Thus, for example, the  
85 reinforcing members could be in the form of wooden poles or channel section metal members. In addition, it may be found in some instances that only one reinforcing tube is necessary while other users of the stretcher might wish for three tubes to  
90 reinforce the stretcher.

## CLAIMS

1. A stretcher made of canvas stiffened by slats so as to act as a splint for the whole body, the size of the stretcher being such that the canvas can be  
95 wrapped around the body of a casualty with the slats positioned on all sides of the body, in which one or more rigid reinforcing members extend substantially the full length of the stretcher so that the casualty can be held completely immobile in the  
100 stretcher.
2. A stretcher according to claim 1, in which the stretcher is a Neil Robertson stretcher.
3. A stretcher according to claim 1 or claim 2, in which the rigid reinforcing member of each such  
105 member comprises a tube made of aluminium, steel or other metal.
4. A stretcher according to claim 3, in which the tube, or each tube, is provided at its ends with toggles or other fastening means which pass  
110 through eyelets in the canvas of the stretcher so as to fasten the tube to the canvas in a secure but easily removable fashion.
5. A stretcher according to claim 4, in which each toggle comprises a cord which passes through a  
115 pair of opposing holes in an end portion of a respective tube with the end of the cord being knotted or otherwise enlarged.
6. A stretcher according to claim 4 or claim 5, in which the tube, or each tube, passes through looped  
120 straps or cords of the stretcher at one or more positions between the ends of the stretcher so that the tube(s) and the canvas are held together not

only at the ends of the tube(s) but at one or more intermediate portions as well.

7. A stretcher substantially as described herein with reference to the accompanying drawings.

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